

# FEATURED ARTICLES 🔏

# **Pioneering the Discovery of** 'Face Areas' in the Brain



The prestigious biennial neuroscience prize was awarded to Prof Nancy Kanwisher (MIT), Prof Winrich Freiwald (Rockefeller University), and Prof Doris Ying Tsao (UC Berkeley) for their groundbreaking discovery of a brain system specialised in face recognition. Their research revealed the neural mechanisms behind this crucial social function and established key principles of brain organisation.

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### Lee Kong Chian Distinguished **Professor Public Lecture**



Sponsored by the Lee Foundation, the event was held in conjunction with the IAS Frontiers Conference on Genome Engineering. Prof Maria Jasin (2019 Shaw Prize in Life Science and Medicine) emphasised the importance of precision in genome editing to minimise offtarget effects, while Prof Virginijus Šikšnys (2018 Kavli Prize in Nanoscience) explored the evolutionary arms race between bacteria and bacteriophages.



# **EVENT HIGHLIGHTS**

### **IAS Frontiers Conference** on Genome Engineering



### **Quantum and Topological** Nanophotonics Workshop (QTN 2024)



Organised by IAS and CCEB, the conference explored the transformative impact of the CRISPR-Cas system on biotechnology and biomedical science, from its origins in microbial immunity to its 2020 Nobel Prize-winning role in genome editing. It also showcased emerging genome engineering technologies, fostering cutting-edge research, novel tools, and collaborative innovation.



Organised by CDPT with support from IAS, CoS, SPMS and others, the workshop featured 30 invited talks by leading international researchers on emerging topics in nanophotonics. As the fifth edition of the series, it served as a platform for fostering new research partnerships in the advancing fields of quantum and topological nanophotonics.



#### Institute of Physics Singapore (IPS) Meeting 2024



The annual meeting was a pivotal event for physicists and researchers from Singapore and beyond, fostering idea exchange, promoting diversity and inclusion, and celebrating key contributions across physics. It also featured a session by Quantum SG to strengthen the local quantum ecosystem and support project development etc.



# IAS STEM Graduate Colloquium by Dr Elizabeth Kellogg (St. Jude **Children's Research Hospital)**

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The colloquium featured an enlightening talk by Dr Kellogg on the topic "Understanding and Engineering Transposons for Next-Generation Genome-Editing". By integrating advanced structural biology with genomeediting techniques, her research enables more precise genetic modifications, with far-reaching implications for science and medicine.



# UPCOMING EVENTS

**Recent Progress on Potential Singularity of the 3D Navier-Stokes Equation and Related Models** by Prof Tom Hou (Caltech)

**IAS-SPMS** Distinguished Speaker Seminar by Prof Tom Hou (Caltech USA) 20 December 2024, SPMS LT 4

Register now



bel Prize in Physics 1997 Stanford University

ACM Prize in Computing 2022 Massachusetts Institute of Technology

#### IAS Lee Kong Chian Distinguished **Professor Public Lecture**

8 January 2025, Tan Chin Tuan Lecture Theatre

Prof Steven Chu - The Challenges in Getting to Net-Zero Greenhouse Gas Emissions

Prof Yael Kalai - Compressing Proofs using Cryptography

Registration opens soon.

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For enquiries, email us at ias@ntu.edu.sg

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